Claims

1. Measuring probe (100, 200, 300) for measuring high frequencies, having a contact end (20) for contacting planar structures and a co-axial cable end (18) for connection to a co-axial cable (22), a co-planar conductor structure (10) having at east two conductors (12, 14) being arranged between the contact end (20) and the co-axial cable end (18) and a dielectric (28) acting as a mounting for the co-planar conductor structure (10) being arranged on the co-planar conductor structure (10), characterised in that the dielectric (28) is arranged on at least one side, and in particular on both sides, of the co-planar conductor structure (10) in a central section between, and spaced away from in the direction of propagation, the co-axial cable end (19) and the contact end (20), in such a way that each conductor (12, 14) in the co-planar conductor structure (10) is formed to be individually free in space and resilient in relation to the dielectric (28) acting as its mounting, a respective gap (16) ,being formed between each pair of conductors (12, 14) in the co-planar conductor structure (10) from the co-axial cable end (18) to the contact end (20) in such a way that a constant characteristic impedance is obtained from he co-axial cable end (18) to the contact end (20).

2. Measuring probe (100, 200, 300) according to claim 1, characterized in that the respective gap (16) is made wider in he region of the dielectric (28) than in the region of the co-planar conductor structure (10) where there is no dielectric (28).

3. Measuring probe (100, 200, 300) according to either of claims 1 and 2, characterised in that the dielectric is in the form of at least one block of quartz (28).

4. Measuring probe (100, 200, 300) according to at least one of the foregoing claims, characterised in that the dielectric (28) has, on a side where it is connected to the co-planar conductor structure (10), a metal coating which substantially coincides in shape with the latter.

5. Measuring probe (200) according to at least one of the foregoing claims, characterised in that the dielectric (28)is metallised over its full area on a side remote from the co-planar conductor structure.

ART 34 AMDT

6. Measuring probe according to at least one foregoing claims, characterised in that a planar circuit and in particular an electrical or electronic, i.e. active, circuit or at least one active circuit element is arranged at the co-axial cable end (18).